WE CLAIM:

1. A self regulating flexible heater construction for producing heat when connected to an electrical power source, comprised of:

a flexible fabric substrate;

a layer of a positive temperature coefficient material; and

a layer of a conductive material.

2. The heater of claim 1 wherein the substrate is woven or non-woven fabric.

3. The heater of claim 1 wherein the layer of conductive material is applied to the layer of positive temperature coefficient material in an interdigitated pattern.

4. The heater of claim 1 wherein the layer of positive temperature coefficient material is applied to the layer of conductive material in an interdigitated pattern.

5. The heater of claim 1 wherein the density of the fabric is 1 to 6 ounces per square yard.

6. The heater of claim 1 wherein the PTC material is comprised of a polyolefin resin.

7. The heater of claim 1 wherein the coating of PTC material has a weight 7 to 20 lbs. per ream.

8. The heater of claim 1 wherein the positive temperature coefficient material has a surface

resistivity of 2 to 10 kilo-ohms as measured by multimeter probes set 1 cm apart.

9. The heater of claim 1 wherein the positive temperature coefficient material has a surface resistivity of 3 to 8 kilo-ohms as measured by multimeter probes set 1 cm apart.

10. The heater of claim 1 wherein the conductive material is formulated from a mixture of a polymeric resin selected from the group consisting of vinyls, polyesters, acrylics and a conductive material selected from the group consisting of silver pigment, a silver coated copper pigment, or plated copper pigments.

11. The heater of claim 1 wherein the conductive material is formulated from a mixture of solvating materials selected from the group consisting of organic solvents and water based solvents and a conductive material selected from the group consisting of silver pigment, a silver coated copper pigment, or plated copper pigments.

12. The heater of claim 1 wherein the conductive material is constructed of conductive wires fixed within the construction by conductive glues.

13. The heater of claim 1 wherein the first and second layers are applied to the substrate by screen printing, spraying, draw down, web printing or any other printing method capable of providing a uniform coating.

14. The heater of claim 1 further comprised of a plurality of buss bars in electrical contact

with the conductive material and an electrical power source.

15. The heater of claim 14 wherein the buss bars have a width dimension and a length dimension, and wherein the width decreases over at least a portion of its length.

16. The heater of claim 14 wherein the buss bars have a width dimension and a length dimension, and wherein the width remains constant over at least a portion of its length.

17. The heater of claim 14 wherein the buss bars have a width dimension and a length dimension, and at least one void at a preselected location along its length.

18. The heater of claim 14 wherein the buss bars have a width dimension and a length dimension, and wherein the width dimension increases step-wise over at least a portion of its length.

19. The heater of claim 14 wherein the spacing of the busses varies across the heater.

20. The heater of claim 1 further comprised of an overlayer of a laminated or sewn secondary breathable woven or non-woven fabric comprised of natural or synthetic fibers which covers the heater.

21. The heater of claim 20 wherein the overlayer is an encapsulating coating, which may be a flame retardant coating, which is applied over the heater elements.

22. The heater of claim 1 wherein the heater is incorporated within the construction of a seat for an automobile.

23. The heater of claim 1 wherein the heater has a multiple buss design providing for high and low current settings, comprised of at least a common setting buss, a low setting buss, and a high setting buss, in which current flows from either the common setting buss to high setting buss or from the common setting buss to low setting buss.

24. A self regulating flexible heater construction for producing heat when connected to an electrical power source, comprised of:

a flexible fabric substrate;

a layer of a positive temperature coefficient material; and

a layer of a conductive material, wherein the seat heater composition has a bulk density of about 0.6 g/cm^3 or greater and a thermal diffusivity of about 0.003 cm^2/s or greater.